Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T Degree Examination – MAR/APR 2017

Time: Three Hours | Max. Marks: 100 Marks

ANATOMY (RS-3 & RS-4)

Q.P. CODE: 2701

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary. Answer all questions

LONG ESSAYS (Answer any Two) — 2 x 10 = 20 Marks

1. Describe axillary artery under the following headings
   a) extent b) relations c) branches d) applied anatomy
2. Describe the popliteal fossa under the following headings
   a) boundaries b) contents c) applied anatomy
3. Classify joints and describe the structure of synovial joint.

SHORT ESSAYS (Answer any Twelve) — 12 x 5 = 60 Marks

4. Brachial artery
5. Microscopic structure of compact bone
6. Pelvic diaphragm
7. Trachea
8. External carotid artery
9. Boundaries of inguinal canal
10. Cubital fossa
11. Erb's paralysis
12. Spine of the scapula
13. Blood supply of the heart
14. Circle of Willis
15. External features of stomach
16. Superficial palmar arch
17. Great saphenous vein

SHORT ANSWERS — 10 x 2 = 20 Marks

18. Name the branches of Facial artery in face.
19. Differences between hyaline and elastic cartilage
20. Classify neurons with example.
21. Name the parts of lateral ventricle.
22. Name four derivatives of ectoderm.
23. Functions of cerebellum
24. Name any four structures passing below piriformis muscle.
25. Contents of femoral sheath
26. Structures piercing the clavipectoral fascia
27. Formation of portal vein

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – APRIL 2017

Time: Three Hours | Max. Marks: 100 Marks

HUMAN PHYSIOLOGY (RS-3 & RS-4)

Q.P. CODE: 2702

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Describe the sliding-filament theory of muscle contraction.
2. What are chemoreceptors? Mention their location and role in the regulation of respiration.
3. Describe the functions of cerebellum. Explain four clinical manifestations of cerebellar lesions.

SHORT ESSAYS (Answer any Twelve) 12 x 5 = 60 Marks

4. Name the GI hormones and describe their actions.
5. Explain the terms obligatory and facultative reabsorption of water.
6. Enumerate the function of skin.
7. Enumerate the functions and regulation of secretion of pancreatic juice.
8. Enumerate the properties of a neuron. Explain the property of refractory period.
9. Describe triple response.
10. Enumerate the secondary sexual characteristics in a female.
11. Describe the role of platelets in haemostasis. What is thrombocytopenic purpura?
12. Explain the physiological actions of thyroid hormone.
13. Define cardiac output. Explain the factors regulating venous return.
14. Draw the O2 dissociation curve. List the factors causing the shift of the curve to the right and left.
15. Draw a labelled diagram of the pyramidal pathway. List their functions.
16. Define REM and NREM sleep. Differentiate the features of REM and NREM sleep.
17. Discuss the refractive errors of the eye. Make a note on its correction.

SHORT ANSWERS 10 x 2 = 20 Marks

18. Functions of Mitochondria and Endoplasmic reticulum
19. Define muscle tone. List the higher centres controlling it.
20. What is ventilation-perfusion ratio? Give its normal value.
21. Define the terms “transport maximum” and “renal threshold”.
22. Define secondary active transport mechanism. Enumerate the types.
23. Tabulate any three differences between isometric and isotonic contraction.
24. Define puberty. Enumerate the features of puberty.
25. Draw labelled diagram of Eosinophil. Specify its functions.
26. What are baroreceptors? Mention their locations.
27. Name the different GI movements. Define Peristalsis.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – APRIL 2017

Time: Three Hours | Max. Marks: 80 Marks

BIO-CHEMISTRY (RS-3 & RS-4)

Q.P. CODE: 2703

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Describe Citric Acid Cycle. Add a note on its energetics.
2. Describe the sources, RDA, biochemical functions and deficiency of Vitamin B1.
3. Describe the sources, RDA, biochemical functions and deficiency of Iron.

SHORT ESSAYS (Answer any Eight) 8 x 5 = 40 Marks

4. Dietary fibers
5. Types of RNA, add a note on t-RNA.
6. Diagnostic importance of enzymes
7. Ketogenesis, add a note on ketosis.
8. Digestion and absorption of lipids
9. Biochemical functions of Pyridoxine
10. Glycogen synthesis
11. Biochemical functions of Copper
12. Competitive inhibition
13. BMR

SHORT ANSWERS 10 x 2 = 20 Marks

14. Co-enzyme forms of Riboflavin and Niacin
15. Rothera's test
16. Cori's cycle
17. Glycosidic bond
18. Nitrogen balance
19. Gout
20. Transamination
21. Van den Bergh reaction
22. Calorific value of Carbohydrate and Protein
23. Write the name of fat soluble vitamins.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – APRIL 2017

Time: Three Hours | Max. Marks: 80 Marks

BIOMECHANICS (RS-3)

Q.P. CODE: 2704

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary. Answer all questions

LONG ESSAYS (Answer any Two) — 2 x 10 = 20 Marks

1. Describe the Newton's Law with suitable examples.
2. Explain the function of cervical region.
3. Write about the biomechanics of elbow complex.

SHORT ESSAYS (Answer any Eight) — 8 x 5 = 40 Marks

4. Describe the force components.
5. Explain the load deformation curve.
6. Describe the muscle length tension relationship.
7. Describe the structure and function of sacroiliac joint.
8. Write about the coordination and integration of ventilatory motions.
9. Biomechanics of acromioclavicular joint.
10. Explain the biomechanics of Radioulnar joint.
11. Write about the precision handling.
12. Describe the mechanism of using a cane ipsilaterally and contralaterally.
13. Explain supination and pronation twist.

SHORT ANSWERS — 10 x 2 = 20 Marks

14. Define Anatomic pulley.
15. Young's modulus.
16. Angular velocity.
17. Movements of temporomandibular joint
18. Scaption.
19. Spherical grip.
20. Housemaid's knee.
21. Stride duration.
22. Ataxic gait.
23. Tenodesis.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – April 2017

Time: 3 Hours | Max. Marks: 40 Marks

General Psychology

Q.P. Code : 2705

Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary

(Note : Both QP Codes 2705 and 2706 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) — 1 x 10 = 10 Marks

1. What is motivation? Explain the types of motivation.
2. What is learning? Explain the conditional theory of learning.

SHORT ESSAYS (Answer any Four) — 4 x 5 = 20 Marks

3. School of psychoanalysis
4. Errors of perception
5. Distribution of intelligence
6. Types approaches to personality
7. Steps in creative thinking.

SHORT ANSWERS — 5 x 2 = 10Marks

8. Sensation
9. Drives
10. Conflict
11. Laws of learning
12. Repression

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – April 2017

Time: 3 Hours Max. Marks: 40 Marks

Sociology

Q.P. Code: 2706

Your answers should be specific to the questions asked. Draw neat, labeled diagrams wherever necessar

(Note: Both QP Codes 2705 and 2706 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) 1 x 10 = 10 Marks

1. Explain the agencies of Socialization.
2. Discuss the relation between culture and health.

SHORT ESSAYS (Answer any Four) 4 x 5 = 20 Marks

3. Nature of Sociology
4. Types of family
5. Health hazards of village community
6. Causes of Prostitution
7. Social aspects of hospital set up

SHORT ANSWERS 5 x 2 = 10Marks

8. Juvenile-Delinquency
9. Opinion poll method
10. Social security measure
11. Matrilineal family
12. Define social change.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination - APRIL 2017

Time: Three Hours | Max. Marks: 100 Marks

BIO-MECHANICS (Revised Scheme – 4)

Q.P. CODE: 2707

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Describe the articulations of the hip joint and explain the motions of Pelvis on femur.
2. Name the parameters of gait. Analyse and describe the Swing phase of gait cycle.
3. Describe the biomechanics of Patello-femoral joint.

SHORT ESSAYS (Answer any Twelve) 12 x 5 = 60 Marks

4. Describe the Precision Pinches.
5. Analyse the activity of Stand to sit on chair.
6. Classify and explain equilibrium with example.
7. What is static and dynamic posture? Write in brief about the postural mechanism.
8. Write a note on structure of cervical spine.
9. Describe the characteristics of Type I and Type II muscle fibres.
10. List the types of joint and describe synovial joint.
11. Describe the Pronation and Supination twist.
12. Explain with diagram the Load-deformation curve.
13. Describe the structure and movements of Scapulothoracic joint.
14. What are two joint muscles? Explain active insufficiency with example.
15. Describe the structure of Intervertebral joint.
16. Write a note on Scapulo-humeral rhythm.
17. Explain torque and moment arm with an example.

SHORT ANSWERS 10 x 2 = 20 Marks

18. What is Coxa vara?
19. Give two examples of Closed Kinematic chain.
20. What is Patella Baja?
21. Name the muscles contracting during hook grip.
22. What are functions of arches of foot?
23. List the types of joint lubrication.
24. In which position is, the elbow joint most stable. Why?
25. Define Isoinertial muscle contraction.
26. What are the movements occurring, during pump-handle motion of thorax?
27. What is concave – convex rule?

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – MAR/APR 2017

Time: Three Hours Max. Marks: 100 Marks

HUMAN ANATOMY (RS - 5)

Q.P. CODE: 2731

Your answers should be specific to the questions asked.

Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Describe the origin, course, relations, branches and applied anatomy of sciatic nerve.
2. Describe the temporomandibular joint under following heading: articular surface, ligaments, movements of muscles and applied anatomy.
3. Stomach – external features, ligaments, blood supply and lymphatic drainage.

SHORT ESSAYS (Answer any Twelve) 12 x 5 = 60 Marks

4. Thoracic duct
5. Hamstring muscles
6. Liver – external features, ligaments and bare area
7. Pituitary gland – location, parts, blood supply and hormones
8. Great saphenous veins
9. Anterior compartment of arm with nerve supply
10. Inguinal canal – boundaries, contents and applied anatomy
11. Dura matter
12. Scapula
13. 2nd part of duodenum
14. Right atrium
15. Classification of bones
16. Knee joint – ligaments and muscles action
17. Gluteus maximus

SHORT ANSWERS 10 x 2 = 20 Marks

18. Define fibrous joint with two examples.
19. Name the paranasal air sinuses.
20. Name the muscles of tongue with nerve supply.
21. What is anatomical snuff box and its importance?
22. Sesamoid bone
23. Contents of spermatic cord
24. Draw the structure of nephron.
25. Name the carpal bones.
26. Ansa cervicalis
27. Layers of scalp

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – APRIL 2017

Time: Three Hours | Max. Marks: 100 Marks

HUMAN PHYSIOLOGY (RS-5)

Q.P. CODE: 2732

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary. Answer all questions

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Write the composition of Gastric juice secretion and describe its phases. Add a note on its regulation.
2. With the help of a graph describe an action potential recorded from a nerve fibre. Explain its ionic basis.
3. Classify sensory receptors. Explain the properties of receptors

SHORT ESSAYS (Answer any Twelve) 12 x 5 = 60 Marks

4. Spermatogenesis
5. Parkinsonism
6. Describe the renal tubular handling of Glucose.
7. Functions of large intestine
8. Hazards of mismatched blood transfusion
9. What is dead space? Explain its types.
10. Explain triple response.
11. What is Myasthenia gravis? Explain its clinical features. Add a note on its treatment.
12. Milk ejection reflex
13. Name the mechanism of short term regulation of blood pressure. Explain briefly any one of them.
14. Micturition reflex
15. What is Timed Vital Capacity? What is its clinical significance?
16. What is sarcomere? Describe the structure of sarcomere.
17. What is anemia? Describe the types.

SHORT ANSWERS 10 x 2 = 20 Marks

18. State Landsteiner's Law
19. Myopia
20. Enumerate the test for hearing.
21. List the test for Ovulation.
22. Draw the normal waves of Lead II ECG.
23. What is salutary conduction?
24. List the difference between 1st heart sound and 2nd heart sound.
25. List the actions of bile salts.
26. Enumerate the functions of CSF.
27. Define GFR. What is its normal value?

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – APRIL 2017

Time: Three Hours | Max. Marks: 80 Marks

BIOCHEMISTRY (RS-5)

Q.P. CODE: 2733

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Describe Kreb's cycle. Add a note on energetic.
2. Describe source, RDA, deficiency symptom and biochemical functions of vitamin Thiamine.
3. Describe in detail the steps of urea cycle. What are normal levels of blood urea? Give three causes of variations.

SHORT ESSAYS (Answer any Eight) 8 x 5 = 40 Marks

4. Functions of Phospholipids
5. Structural organization of proteins
6. Name five amino acids. Give one derivative of it.
7. Describe digestion and absorption of lipids.
8. Functions of calcium
9. Glycogenolysis
10. Classify enzymes with suitable examples.
11. Absorption of Iron
12. Structure and functions of collagen
13. Structure and functions of DNA

SHORT ANSWERS 10 x 2 = 20 Marks

14. Normal value and clinical significance of Acid phosphatase
15. Functions of Nucleus
16. Functions of tRNA
17. Mention two causes of Metabolic acidosis
18. Niemann – Pick's disease
19. Effect of pH on enzyme reaction
20. Functions of vitamin C
21. Normal levels of serum triglycerides and cholesterol
22. Two functions of liver
23. Role of insulin on carbohydrate metabolism

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – APRIL 2017

Time: Three Hours Max. Marks: 100 Marks

BIO-MECHANICS (RS - 5)

Q.P. CODE: 2734

Your answers should be specific to the questions asked.

Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Discuss the structure of wrist complex and add a note on functional position of wrist and hand.
2. Define posture. Mention types of posture and explain the strategies controlling posture.
3. Describe in detail the mechanism of muscle contraction and mention different types of muscle contraction.

SHORT ESSAYS (Answer any Twelve) 12 x 5 = 60 Marks

4. Define force and explain the components of force.
5. Briefly classify joints in detail.
6. Lateral pelvic tilt
7. Explain the goniometric measurement procedure for measuring knee Range of motion.
8. Discuss the structure of motor unit in detail with diagram.
9. Load deformation curve
10. Define axis and plane with respect to shoulder joint movements.
11. Lumbar pelvic rhythm
12. Pronation and supination twist
13. Kinematics of ribs
14. Discuss the kinematics of elbow complex.
15. Thoracolumbar fascia
16. Briefly explain the structure of contractile unit.
17. Discuss various types of prehension of hand.

SHORT ANSWERS 10 x 2 = 20 Marks

18. Kinetics and kinematics
19. Pulled elbow
20. Hallux valgus and Hammer toe
21. Centre of pressure
22. Name the muscles of ventilation.
23. Genu varum and valgum
24. Angle of inclination of femur
25. ‘Q’ - Angle
26. Gluteus medius gait
27. Nutation and counter nutation

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – April 2017

Time: 3 Hours | Max. Marks: 40 Marks

Psychology (RS-5)

Q.P. Code: 2735

Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary

(Note : Both QP Codes 2735 and 2736 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) — 1 x 10 = 10 Marks

1. Define attention. Explain in detail about the different types of attention.
2. Define learning. Describe the different types of learning.

SHORT ESSAYS (Answer any Four) — 4 x 5 = 20 Marks

3. Characteristics of defense mechanism
4. Rating scale
5. Introspection method
6. Source of frustration
7. Development of attitude

SHORT ANSWERS — 5 x 2 = 10Marks

8. Motive
9. Sensation
10. Leadership
11. Emotion
12. Intelligence quotient

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination - April 2017

Time: 3 Hours | Max. Marks: 40 Marks

SOCIOLOGY (RS – 5)

Q.P. Code: 2736

Your answers should be specific to the questions asked.

Draw neat, labeled diagrams wherever necessary

(Note: Both QP Codes 2735 and 2736 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) 1 x 10 = 10 Marks

1. Define socialization and explain the stages of socialization.
2. Explain the features of urban community and describe their problems.

SHORT ESSAYS (Answer any Four) 4 x 5 = 20 Marks

3. Characteristics of group
4. Culture and health
5. Problems of urban people
6. Functions of family
7. Use of sociology in physiotherapy

SHORT ANSWERS 5 x 2 = 10 Marks

8. MSW
9. Social security
10. Social survey
11. Interview
12. Social group

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T Degree Examination – SEP-2017

Time: Three Hours | Max. Marks: 100 Marks

ANATOMY (RS-3 & RS-4)

Q.P. CODE: 2701

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary. Answer all questions

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Describe the external features and nerve supply of tongue. Add a note on tongue muscles.
2. Describe the external features of heart. Add a note on right atrium.
3. Describe the articular surface, ligaments, relations, movements and applied anatomy of shoulder joint.

SHORT ESSAYS (Answer any Twelve) 12 x 5 = 60 Marks

4. Root of the lung
5. Testis
6. Upper end of femur
7. Rt. Kidney
8. Second part of Duodenum
9. Supports of Bladder
10. Adductor canal
11. Arterial supply of heart
12. Superior mediastinum – Boundaries and contents
13. Superior venecava
14. Muscles of Anterior abdominal wall
15. Facial nerve
16. Deltoid
17. Cubital fossa

SHORT ANSWERS 10 x 2 = 20 Marks

18. Histology of Hyaline cartilage
19. Attachments on greater tuberosity of humerous
20. Parts of uterine tube
21. Parts of Parietal pleura
22. Parts of Brain stem
23. Branches of Lateral cord of Brachial plexus
24. Any four branches of descending Thoracic aorta
25. Name the Tarsal bones.
26. Name the ear bones.
27. Parts of caudate nucleus

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – SEP-2017

Time: Three Hours | Max. Marks: 100

Marks

HUMAN PHYSIOLOGY (RS-3 & RS-4)

Q.P. CODE: 2702

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Define action potential. With a well labelled graph explain the ionic basis of Action potential.
2. Define cardiac cycle. Explain the different phases of cardiac cycle with their duration.
3. Trace the pathway for pain sensation. Explain the gate mechanism of pain. Add a note on referred pain.

SHORT ESSAYS (Answer any Twelve) 12 x 5 = 60 Marks

4. Explain the formation and functions of lymph.
5. Define hypoxia. Tabulate the different types of hypoxias giving examples for each.
6. List the composition of saliva and mention its functions.
7. Draw and explain the ionic basis of the action potential of working cardiac muscle.
8. Define GFR and give its normal value. Enumerate the factors regulating GFR.
9. Trace the taste pathway.
10. Define arterial blood pressure giving normal values. Discuss the immediate mechanisms in regulating the arterial blood pressure.
11. Explain the basis of Brown-Sequered syndrome.
12. Neural regulation of respiration
13. Functions of thalamus
14. Enumerate the hypothalamic hormones and their function.
15. Explain the mechanism of spermatogenesis.
16. Define blood transfusion. Discuss the types of blood transfusion.
17. Enumerate the function of skin.

SHORT ANSWERS 10 x 2 = 20 Marks

18. Draw a Spirogram.
19. Functions of Golgi apparatus, endoplasmic reticulum
20. Enumerate the contraceptive methods in females.
21. Define tachycardia. Mention two conditions in which it occurs.
22. Enumerate the functions of ADH.
23. Draw a diagram of strength-duration curve and label rheobase and chronaxie.
24. Define PCV (Haematocrit). State its significance.
25. What is Gastrin? Give any two functions.
26. Define Primary active transport mechanism. Give an example.
27. Draw an Organ of Corti.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – SEP-2017

Time: Three Hours Max. Marks: 80 Marks

BIO-CHEMISTRY (RS-3 & RS-4)

Q.P. CODE: 2703

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary. Answer all questions

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Describe the sources, RDA, biochemical functions and hormonal regulation of serum calcium levels. Add a note on Hypocalcaemia.
2. Describe Citric Acid Cycle. Add a note on its energetics.
3. Describe the chemistry, sources, RDA, biochemical functions and deficiency manifestations of Vitamin A.

SHORT ESSAYS (Answer any Eight) 8 x 5 = 40 Marks

4. Basal Metabolic Rate (BMR).
5. Mucopolysaccharides
6. Phospholipids
7. Factors affecting enzyme activity
8. Structure and function of DNA
9. Digestion of proteins
10. Fatty acid synthase complex
11. Transamination reaction
12. Renal regulation of Acid-Base balance
13. Biochemical functions and deficiency manifestation of Vitamin C

SHORT ANSWERS 10 x 2 = 20 Marks

14. Cori's cycle
15. Functions of Copper
16. Endoplasmic Reticulum
17. Essential Fatty acids
18. Peptide bond
19. Zymogens
20. Role of aldosterone in regulation of Electrolyte balance
21. Glutathione
22. Messenger RNA (mRNA).
23. Normal serum levels of Creatinine and Uric acid.

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – SEP-2017

Time: 3 Hours Max. Marks: 40 Marks

Sociology

Q.P. Code: 2706

Your answers should be specific to the questions asked. Draw neat, labeled diagrams wherever necessar

(Note: Both QP Codes 2705 and 2706 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) 1 x 10 = 10 Marks

1. Define family. Explain the types and functions of family.
2. Define social problems and explain any one problem with causes, effect and solutions.

SHORT ESSAYS (Answer any Four) 4 x 5 = 20 Marks

3. Socialization stages
4. Factors of social change
5. Cultural and health disorders
6. Characteristics of primary group
7. Problems of rural community

SHORT ANSWERS 5 x 2 = 10Marks

8. Case study method
9. Branches of sociology
10. Social change and deviance
11. MSW
12. Social security

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Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination - SEP-2017

Time: Three Hours Max. Marks: 100 Marks

BIO-MECHANICS (Revised Scheme – 4)

Q.P. CODE: 2707

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Describe the structure of Glenohumeral joint and explain the dynamic stability of the Glenohumeral joint.
2. Name the distance and time variables of gait. Describe the kinetics of gait cycle from heel strike to midstance.
3. What is the difference between osteokinematics and arthrokinematics? Describe the arthrokinematics at the knee joint.

SHORT ESSAYS (Answer any Twelve) 12 x 5 = 60 Marks

4. Define Stress and Strain. Draw and explain the Load-deformation curve.
5. Classify synovial joints and give one example of each.
6. What are the types of force systems? Explain resolution of forces giving example in relation to human body.
7. Describe isotonic contraction with suitable example.
8. Write a note on Osteokinematics of Hip joint.
9. Explain the relationship between centre of gravity, line of gravity and base of support.
10. Describe the structure and function of Subtalar joint.
11. Analyse the activity of lifting weight from the ground.
12. Explain with example the Kinematic chains.
13. Describe the factors contributing to stability and mobility of the elbow joint.
14. Describe the structure of the wrist joint and mention the movements that occur at the wrist joint.
15. What is mechanical advantage (MA)? Explain MA in relation to pulleys.
16. Write a note on lumbar pelvic rhythm.
17. Explain in brief the postural control.

SHORT ANSWERS 10 x 2 = 20 Marks

18. Write any four characteristics of slow oxidative (Type I) muscle fibres.
19. Name the movements that take place at Scapulothoracic joint.
20. Define carrying angle.
21. What is active insufficiency?
22. Name any four types of joint lubrication.
23. Classify prehension.
24. Define work and energy.
25. Name any two deformities seen in knee joint.
26. What is Isokinetic contraction?
27. What is closed packed of joint?

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – SEP-2017

Time: Three Hours | Max. Marks: 100

Marks

HUMAN ANATOMY (RS - 5)

Q.P. CODE: 2731

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) — 2 x 10 = 20 Marks

1. Describe the carotid triangle under the following headings: boundaries, roof, floor, contents and applied anatomy.
2. Describe the origin, course, relations, branches and applied anatomy of sciatic nerve.
3. Describe the origin, termination, relations, branches and applied anatomy of axillary artery.

SHORT ESSAYS (Answer any Twelve) — 12 x 5 = 60 Marks

4. Parotid gland
5. Musculocutaneous nerve of arm
6. Lateral ventricle
7. Superior mediastinum
8. Stomach bed
9. Broncho pulmonary segment
10. Supports of uterus
11. Adductor canal
12. Sternal angle
13. Cubital fossa – boundaries, contents and applied anatomy
14. Blood supply of heart
15. External features of liver
16. Pituitary gland
17. Classify muscles with examples.

SHORT ANSWERS — 10 x 2 = 20 Marks

18. Mention the joints where inversion and eversion takes place.
19. Name the ear ossicles.
20. Draw the structure of neuron.
21. Waldeyer’s ring
22. What is Morsion’s and Dougla’s pouch?
23. Name the nuclei present in cerebellum.
24. Name the layers of scrotum.
25. Name the muscles of anterior abdominal wall.
26. Name the bones forming ankle joint.
27. Draw the transverse section of spinal cord.

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – SEP-2017

Time: Three Hours | Max. Marks: 100

Marks

HUMAN PHYSIOLOGY (RS - 5)

Q.P. CODE: 2732

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Draw a labeled diagram of a synapse. Discuss the properties of a synapse.
2. Define arterial blood pressure. Explain the immediate and long term regulation of blood pressure.
3. Define a triad. Explain its role in muscle contraction.

SHORT ESSAYS (Answer any Twelve) 12 x 5 = 60 Marks

4. Describe the body mechanisms by which it tolerates warm environment.
5. Outline the neural regulation of respiration.
6. State Landsteiner's law. Add a note on erythroblastosis foetalis.
7. Describe the functions of bile juice.
8. Tabulate the differences between I and II heart sounds.
9. Discuss the counter-current mechanism taking place in Juxta medullary nephrons.
10. Describe the cardio-vascular changes during muscular exercise.
11. Describe the events and hormonal basis of the different phases of menstrual cycle.
12. Explain accommodation reflex.
13. Describe in detail the structure and functioning of the muscle spindle.
14. Functions of cerebellum
15. Trace the dorsal column tracts and mention its functions.
16. Enumerate the hormones of calcium metabolism. Write the functions of each.
17. Functions of saliva

SHORT ANSWERS 10 x 2 = 20 Marks

18. Differentiate between simple and facilitated diffusion.
19. What is GFR? Give its normal value.
20. Define dyspnoea.
21. List the functions of pulmonary surfactant.
22. Define sex determination.
23. Define compliance and give its normal value.
24. Define intrapleural pressure. Give its normal values and the values during respiratory cycle.
25. Differentiate between fast and slow muscles (any three).
26. Define immunity. Mention the types of immunity.
27. Enumerate any four clinical features of Parkinson's disease.

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I Year B.P.T. Degree Examination – SEP-2017

Time: Three Hours | Max. Marks: 80

Marks

BIOCHEMISTRY (RS-5)

Q.P. CODE: 2733

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Describe the chemistry, source, absorption, daily requirement, deficiency disorders and biochemical role of vitamin D.
2. What is the normal PH of blood? Discuss the mechanism involved in its regulation.
3. Define enzyme, its structure and functions. Explain the mechanism of enzyme action. Add a note on inhibition of enzymes.

SHORT ESSAYS (Answer any Eight) 8 x 5 = 40 Marks

4. Bicarbonate buffer system of blood
5. Substrate level Phosphorylation
6. Functions of Niacin (Vitamin D3)
7. General mechanism of action of steroid hormones
8. What are co-enzymes? Illustrate their role in metabolism with four examples.
9. Biological active peptides
10. Mitochondrial structure and function
11. Chemical properties of carbohydrates
12. Describe the properties of lipids.
13. Name five enzymes of diagnostic significance with their normal serum level.

SHORT ANSWERS 10 x 2 = 20 Marks

14. Transamination reactions
15. Name the metabolic products of Tyrosine.
16. Name the ketone bodies. Mention two causes of ketosis.
17. Kwarshiorkar
18. What are epimors? Give example.
19. Invert sugar
20. Distinguish between DNA and RNA
21. Write the coenzyme form of: 1. Thymine, 2. Riboflavin
22. Peptide bond
23. Chori's cycle

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I Year B.P.T Degree Examination – SEP-2017

Time: Three Hours | Max. Marks: 100

Marks

BIO-MECHANICS (RS-5)

Q.P. CODE: 2734

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary.

LONG ESSAYS (Answer any Two) — 2 x 10 = 20 Marks

1. Describe the structure of hip joint. Add a note on kinetics and kinematics.
2. Write in detail of Analysis of posture.
3. Explain biomechanics of thorax and chest wall.

SHORT ESSAYS (Answer any Twelve) — 12 x 5 = 60 Marks

4. Scapulo humeral rhythm
5. Locking and unlocking mechanism
6. Explain levers in detail.
7. Describe the types of joints.
8. Explain the parts of goniometric and its types.
9. Describe stress and strain.
10. Explain Newton law of motion.
11. Lumbo-pelvic rhythm
12. Properties of connective tissues
13. Compare and contrast different muscle contractions
14. Sitting to standing – movement analysis
15. Determinants of gait
16. Different types of grip
17. Describe joint lubrication model.

SHORT ANSWERS — 10 x 2 = 20 Marks

18. Carrying angle
19. Scoliosis
20. Concurrent force systems
21. Stair climbing
22. Patella Plica
23. Visco elasticity
24. Pes Planus and Pes Cavus
25. Pulleys
26. Open Kinematic chain
27. Palmar arches

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I Year B.P.T. Degree Examination - SEP-2017

Time: 3 Hours | Max. Marks: 40

Marks

PSYCHOLOGY (RS – 5)

Q.P. Code: 2735

Your answers should be specific to the questions asked.

Draw neat, labeled diagrams wherever necessary

(Note: Both QP Codes 2735 and 2736 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) 1 x 10 = 10 Marks

1. What is personality? Explain the assessment of personality.
2. What is psychology? Explain the methods of psychology.

SHORT ESSAYS (Answer any Four) 4 x 5 = 20 Marks

3. Abraham Maslow's theory of need hierarchy
4. Distribution of intelligence
5. Formation of attitude
6. Trial and error of learning theory
7. Types of reasoning

SHORT ANSWERS 5 x 2 = 10 Marks

8. Social psychology
9. Division attention
10. Genius
11. Incidental and intentional learning
12. Hallucination

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I Year B.P.T. Degree Examination – SEP-2017

Time: 3 Hours Max. Marks: 40 Marks

Sociology (RS5)

Q.P. Code: 2736

Your answers should be specific to the questions asked. Draw neat, labeled diagrams wherever necessary

(Note: Both QP Codes 2735 and 2736 are to be answered within total duration of 3 hours)

LONG ESSAYS (Answer any One) 1 x 10 = 10 Marks

1. Define family. Describe the role of family in health and disease of an individual.
2. Write in detail about the social factors responsible for health and disease.

SHORT ESSAYS (Answer any Four) 4 x 5 = 20 Marks

3. Unemployment
4. Difference between rural and urban community
5. Difference between anthropology and sociology
6. Anticipatory socialization
7. In group and out group

SHORT ANSWERS 5 x 2 = 10Marks

8. Crowd
9. Social rehabilitation
10. Juvenile home
11. Cultural lag
12. Medical social worker

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